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Out
(c) a nucleotide sequence that differs from the nucleotide sequences of (a) and (b) above due to the degeneracy of the genetic code, and which encodes a biologically active B-domain deleted factor VIII.

Please add new claims 68-90:

Sub B6 → 68. (New) A recombinant adeno-associated virus (rAAV) vector comprising a heterologous nucleotide sequence operably linked with an enhancer, wherein said heterologous nucleotide sequence is at least 75% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

69. (New) The recombinant adeno-associated virus (rAAV) vector of claim 68, wherein said heterologous nucleotide sequence is at least 80% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

72 70. (New) The recombinant adeno-associated virus (rAAV) vector of claim 69, wherein said heterologous nucleotide sequence is at least 85% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

71. (New) The recombinant adeno-associated virus (rAAV) vector of claim 70, wherein said heterologous nucleotide sequence is at least 90% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

72. (New) The recombinant adeno-associated virus (rAAV) vector of claim 71, wherein said heterologous nucleotide sequence is at least 95% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

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73. (New) A recombinant adeno-associated virus (rAAV) vector comprising a heterologous nucleotide sequence operably linked with a hepatitis virus expression control element, wherein said heterologous nucleotide sequence is at least 75% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

74. (New) The nucleotide sequence of claim 73, wherein said hepatitis virus expression control element is from hepatitis B virus.

75. (New) The nucleotide sequence of claim 74, wherein said hepatitis virus expression control element is a hepatitis B virus EnhI or EnhII enhancer.

AD Cont
76. (New) The nucleotide sequence of claim 75, wherein said nucleotide sequence comprises the sequence given as about nucleotides 150 to 4835 of the nucleotide sequence set forth in SEQ ID NO:1.

77. (New) The nucleotide sequence of claim 73, wherein said nucleotide sequence further comprises a promoter and a polyadenylation sequence.

78. (New) A vector comprising the nucleotide sequence of claim 77.

Sub B5
79. (New) A cell comprising the vector of claim 78.

80. (New) A recombinant adeno-associated virus (rAAV) vector comprising a heterologous nucleotide sequence operably linked with an enhancer, wherein said heterologous nucleotide sequence encodes the amino acid sequence set forth in SEQ ID NO:2.

81. (New) The recombinant adeno-associated virus (rAAV) vector of claim 80, wherein said heterologous nucleotide sequence is the nucleotide sequence given as nucleotide 419 to 4835 of the nucleotide sequence set forth in SEQ ID NO:1.

Just 89 → 82. (New) ~~A~~ recombinant adeno-associated virus (rAAV) vector comprising a heterologous nucleotide sequence operably linked with at least one enhancer and at least one promoter, wherein said heterologous nucleotide sequence is at least 75% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

C2 Cont 83. (New) The recombinant adeno-associated virus (rAAV) vector of claim 82, wherein said heterologous nucleotide sequence is at least 80% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.



84. (New) The recombinant adeno-associated virus (rAAV) vector of claim 83, wherein said heterologous nucleotide sequence is at least 85% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

85. (New) The recombinant adeno-associated virus (rAAV) vector of claim 84, wherein said heterologous nucleotide sequence is at least 90% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

86. (New) The recombinant adeno-associated virus (rAAV) vector of claim 85, wherein said heterologous nucleotide sequence is at least 95% identical to nucleotides 419-4835 of SEQ ID NO:1 and encodes a biologically active B-domain deleted factor VIII.

87. (New) The rAAV vector of claim 82, wherein said vector further comprises spacer DNA.

88. (New) The rAAV vector of claim 82, wherein said rAAV is selected from the group consisting of AAV serotype 1, serotype 2, serotype 3, serotype 4, and serotype 5.

As Cont  89.  The rAAV vector of claim 82, wherein said promoter is an AAV ITR.

90. A pharmaceutical formulation comprising the rAAV vector of claim 82 in a pharmaceutically acceptable carrier.
